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## A comparative study of five personality factors in opiate dependent individuals in treatment with methadone and normal subjects

Arezu Oskuie Shomali<sup>a</sup>, Reza Rostami<sup>a</sup>, Maryam Hedayati<sup>a</sup>, Jamileh Zarei<sup>a</sup>

<sup>a</sup> University of Tehran ,Jalal –AL-Ahmad, Tehran , 11455/6456, Iran

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### Abstract

The goal of the study was the effectiveness in treatment addicted patients based on their personality profiles. 102 addicted patients from four different areas of Tehran included in this study. All patients were asked to complete IP IP-NEO and Substance Use Disorders scales before and after Methadone Maintenance Therapy (MMT) or detoxification. By means of opium test in six month period, according to their relapse & non-relapse. Findings revealed that there was significant difference between two groups in Neuroticism and patients without relapse had low level of Neuroticism than patients with relapse. We also compared personality profiles of patients with personality profiles of normal subjects. Normal subjects had high levels of Agreeableness and Conscientiousness, while addicted had higher neuroticism. The finding generally, evidenced the differences of personality of normal & addicted people.

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### 1. Introduction

Diagnostic and Statistical Manual of Mental Disorders (DSM-IV- TR) defines drug-dependency as a maladaptive pattern of using drugs that will become manifest by undesirable and considerable outcome related to repetitive using of it.

After years ,it is clear that addiction treatments are extremely expensive, difficult and intolerable. In addiction treatment ,besides low cooperation between doctors ,psychologists ,psychiatrists and patients, the high rate of relapse is the other problem. Relapse rates for addiction range from 50 percent for resumption of heavy use to 90 percent for a brief lapse [1].

In this respect, methadone can be noted as one of the drug treatments. Methadone like opiate is an agonist of the opiate receptors. this treatment is called Methadone maintenance therapy (MMT).

The methadone maintenance therapy is considered to be one of the most efficient treatments that helps drug addicts, which get used to taking drugs ,to stop taking drugs through their substitution by methadone [2]. the purpose of this treatment is to provide a protective therapy for dependents [3].

The results of studies that have used NEO-PI-R questionnaire for drug- dependent people showed that dependents had higher score in neuroticism and openness in comparison with normal population .Also, they gained lower scores in agreeableness & conscientiousness scales than the normal individuals.

The findings suggest that using drug over much is often related to depression and it cause extreme anxiety .Both of them are related to neuroticism dimension.

Mulder (2002) reviewed the literature, highlighting studies conducted over the last decade that examined the association between addiction and personality, including those conducted with high-risk populations. Both longitudinal and epidemiological studies were included. Based on his review, he suggested that two personality characteristics seemed most associated with dependency. These were: (a) impulsivity and search for novelty; and, (b) neuroticism and negative mood. Although studies indicated men were at higher risk for dependency than women, these personality characteristics were more predictive of addiction than gender. Mulder (2002) contended that the presence or absence of anti-social personality or other personality disorders among addiction can generally be explained as the result of factors other than the substance use itself.

In addition to depression and anxiety ,it is also mentioned that using drug extremely cause appearance of impulsions in drug-dependents .Increasing of score in sociopath scale shows the tendency of being impulsive .Meanwhile offense have been observed in many of drug-dependents [4].

Apparently ,there is a linear relationship between using drug with openness and conscientiousness, because the people who avoid get higher score in conscientiousness scale and lower score in openness in comparison with extremist users [5].

This study performed to considering five-factor of personality in opiate dependents and the individuals who relapse after treatment have been carried out ,in Iranian society.

## 2. Method

### 2.1. Participants

Sample of this study includes 90 male and 12 female opiate dependents who are referred to addiction treatment centers in Tehran in the first six- month of 2006 and methadone maintenance treatment was received by them. They were selected because of access .The range of their age was 18 to 38 years(mean=29).

For secondary consideration of this research ,we select and study 120 subjects without any drug substance or abuse background, who were matched with the patients based on demographic characteristics ,including age ,sex ,marital status ,education and income level.

### 2.2. Instruments

**Substance use disorders questionnaire** :This researcher made questionnaire is a set of questions about demographic characteristics ,type of the drug, amount and duration of usage ,way of using, previous efforts to quit ,reason of referral for abandonment ,consequences of using drug and other clinical traits.

**IPIP-NEO personality questionnaire**:IPIP-NEO personality questionnaire is composed of 300 items that evaluate 5 dimensions and 30 components of five-factor model of personality.In this questionnaire each item gets score based on a five degree scale.

After the correction of the value of the reverse items,we have subject's total score in each components or factors.(Goldberg,1999)

The average of Alpha coefficient of the indexes in this questionnaire (0.8) is slightly higher than the average of this coefficient in NEO scale. The average correlation between parallel subscales in these two sets is 0.73. This amount will become 0.94 after the correction that related to lack of reliabilities [6].

### 2.3. Procedure

First of all the opiate dependents were asked to complete substance use disorders questionnaire & personality test. Afterward, the results of their treatment according to the opium test during the six-month period, were studied.

Finally the result of dependent group was compared with the results of normal group's questionnaire.

## 3. Results

82.4 percent of dependent group who had been in treatment, relapsed after six months. To consider the hypothesis of this research the analysis of variance was performed.

According to the results, the average score of neuroticism in subjects with relapse (3.22) is higher than people without it ( $m=2.97$ ). Statistically, the difference is significant ( $\text{Alpha}=0.95$ ). Also, in the components, people who relapsed, get higher average score of anger (3.59) in comparison with people who did not (2.90). Statistically, this difference is significant ( $\text{Alpha}=0.95$ ). Subjects with relapse get higher average score in sensation seeking (3.25) than people without it ( $m=2.79$ ). Statistically, this difference is significant ( $\text{Alpha}=0.95$ ). In the components, the average score of task orientation for people who didn't relapse (3.82) is higher than people who did (3.27). Statistically, this difference is significant ( $\text{Alpha}=0.95$ ). In addition, the average score in carefulness factor for people who didn't relapse (3.59) is higher in comparison with people who did (2.95). Statistically, this difference is significant ( $\text{Alpha}=0.95$ ).

In the components, the average scores of assertiveness and sensation seeking in patients is more than normal population. Statistically, this difference is significant. In sociability factor the patient group get lower average score (2.67) in comparison with normal population (3.04). Statistically, this difference is significant ( $\text{Alpha}=0.95$ ).

Finally, the results of this research show that normal group get the higher average score (3.59) in conscientious factor in comparison with patient group (3.15). Statistically, this difference is significant ( $\text{Alpha}=0.99$ ). The average scores of competence, discipline, task orientation, success seeking and carefulness components in normal group are higher than patient group. Statistically, this difference is significant ( $\text{Alpha}=0.99$ ).

## 4. Discussion

Thus, in conclusion, it should be said that considering the patient's characteristic traits, regardless of family & community during the treatment program, does not very useful [7].

Therefore, in addition to treatment, to reduce or increase the influential factors on the patient's returning, family therapy is recommended as a fundamental program that should be used. Also, psychotherapy and behavior modification techniques should not be forgotten.

Ultimately, it can be concluded that we can't predict the success of treatment just based on a variable, but different interfering factors determine the prognosis of treatment, that person's individual traits and society considered as only a part of them.

This research leads the other studies to investigate personality components and addiction treatments.

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